CONDITION

Skin abscess

A skin abscess is a painful pocket of pus caused by infection beneath the skin.

WHAT IT IS
Pocket of pus beneath the skin

BODY SYSTEM
Skin

MAIN SYMPTOMS
Painful lump, swelling, warmth, pus

WHAT CAUSES IT
Usually bacterial infection

HOW IT IS DIAGNOSED
Skin examination, sometimes ultrasound or pus culture

MAIN TREATMENT
Drainage, wound care, sometimes antibiotics

CAN IT BE CURED?
Yes - most heal after drainage

IS IT AN EMERGENCY?
Sometimes - if infection spreads or causes severe illness

LONG-TERM OUTLOOK
Usually heals, but some abscesses return

Overview

A skin abscess is a collection of pus beneath the skin. Pus contains fluid, bacteria, damaged tissue and infection-fighting cells. The collection usually forms when bacteria enter through a small break in the skin or travel down a hair follicle.

An abscess often feels like a painful, warm lump. Its centre may become soft as pus collects. Some abscesses open and drain by themselves, but many need to be opened and drained by a healthcare professional.

Skin abscesses can occur anywhere. Common sites include the armpits, buttocks, groin, thighs, face and areas exposed to shaving or friction. A boil is a type of abscess that begins around a hair follicle. Several connected boils are sometimes called a carbuncle.

Most skin abscesses heal without lasting problems after appropriate treatment. However,

infection can sometimes spread into nearby skin or, less commonly, deeper into the body. An abscess that keeps returning may be linked to an underlying skin condition or another health problem.

Symptoms

A skin abscess usually starts as a tender or painful lump. It may grow over several days as pus builds up.

Common symptoms include:

Redness may be less noticeable on brown or black skin. Warmth, swelling, pain and a change from your usual skin colour can be more useful signs.

Some people also develop fever, chills, tiredness or swollen lymph nodes, sometimes called "glands." These symptoms can suggest that the infection is affecting more than the small area around the abscess.

Not every skin lump is an abscess. Cysts, inflamed hair follicles, insect bites and other conditions can cause similar swelling. A lump that is hard, painless, long-lasting or not behaving like an infection should be assessed rather than squeezed or punctured.

- A swollen, rounded lump beneath or within the skin
- Pain or tenderness, sometimes with throbbing
- Warmth and redness or a change in skin colour
- A soft or fluid-filled centre
- Yellow, white or blood-stained drainage
- A small central opening or crust

Causes and risk factors

Most skin abscesses are caused by bacteria. Staphylococcus aureus is a common cause. Some strains are resistant to several antibiotics like amoxicillin or doxycycline ; these are known as methicillin-resistant Staphylococcus aureus , or MRSA.

Bacteria can enter through a cut, graze, injection site, insect bite or irritated hair follicle. The opening may be too small to see. An abscess can also develop when a cyst becomes infected or when material such as a splinter remains beneath the skin.

Anyone can develop a skin abscess. Factors that can make one more likely include:

Repeated painful lumps in the armpits, groin, beneath the breasts or around the buttocks may be caused by hidradenitis suppurativa. This is a long-term inflammatory skin condition, not simply poor hygiene or a series of unrelated infections.

- Close skin contact with someone carrying abscess-causing bacteria
- Sharing razors, towels, sports equipment or other personal items
- Shaving, skin friction or frequent sweating
- Eczema or another condition that damages the skin barrier
- Diabetes, especially when blood glucose is not well controlled
- Reduced immune function because of illness or medication
- Injecting drugs
- Previous abscesses or MRSA infection

Diagnosis

A healthcare professional can usually diagnose a skin abscess by examining the lump and asking how it developed. They may gently feel whether there is a pocket of fluid beneath the skin.

If it is unclear whether the lump contains pus, an ultrasound scan may help. Ultrasound uses sound waves to show fluid beneath the skin and does not use radiation.

A sample of pus may be sent to a laboratory for culture. A culture identifies which bacteria are present and which antibiotics may work. This can be especially useful if the infection is severe, keeps returning, has not responded to treatment or may involve resistant bacteria.

Blood tests are not needed for every small abscess. They may be used when there are signs of a more widespread infection or concerns about an underlying health condition.

Treatment and management

The main treatment for a formed skin abscess is drainage. Antibiotics alone may not work well because the walled-off pocket has a limited blood supply, making it harder for medicine to reach the infection.

During incision and drainage, a healthcare professional numbs the area and makes a small opening so the pus can escape. The cavity may be rinsed. It is often left open rather than stitched closed so that remaining fluid can drain.

Some wounds are loosely packed with dressing material, although packing is not needed for every abscess. Follow the wound-care and dressing instructions you receive, including when to return for a check or dressing change.

Antibiotics are not required after every successfully drained abscess. They may be considered when there is spreading infection in the surrounding skin, fever or other general illness, several abscesses, a difficult location, reduced immune function, or a higher risk of complications. The choice may be guided by local bacterial resistance and culture results.

For a very small or early boil, a warm, moist compress may ease discomfort and encourage natural drainage. Do not squeeze, cut, pierce or try to drain an abscess yourself. This can push infection deeper, spread bacteria or injure nearby nerves and blood vessels.

While the area heals:

Seek advice if the wound becomes more painful, swollen or red after treatment, continues producing a large amount of pus, or does not begin to heal.

- Keep the wound clean and covered with a dry dressing
- Wash your hands before and after touching the dressing
- Do not share towels, razors, clothing or bedding
- Wash items that contact drainage according to their care instructions
- Avoid swimming and contact sports while the wound is open or draining
- Use pain relief only as directed on its label or by a professional

Complications

The most common complication is cellulitis, an infection spreading through the surrounding skin. It causes expanding warmth, pain, swelling and redness or skin discolouration.

Other possible complications include a larger or deeper pocket of infection, tissue damage, scarring and another abscess in the same area. Infection can occasionally enter the bloodstream and cause sepsis, a serious whole-body response to infection.

Abscesses near the eyes, nose, spine, hands, genitals or anus may need more careful assessment because important structures are nearby or because a deeper infection may be present.

Repeated drainage from the same place may point to an underlying cyst, a small tunnel beneath the skin, retained foreign material, pilonidal disease or hidradenitis suppurativa.

Prevention

Not every skin abscess can be prevented. Bacteria commonly live on healthy skin, and infection can enter through breaks too small to notice.

You may reduce the chance of infection by cleaning cuts and grazes, covering open wounds, washing your hands regularly and avoiding shared razors or towels. Showering after close-contact sport and cleaning shared equipment can also reduce bacterial spread.

Do not pick at spots, ingrown hairs or healing wounds. Use clean shaving equipment and avoid shaving over inflamed or broken skin.

If abscesses keep returning, a healthcare professional may look for an underlying cause. In selected cases, they may recommend a planned course of antiseptic body washing, nasal treatment or other measures to reduce bacterial carriage. These treatments should not be started repeatedly without advice because they may irritate the skin or contribute to antimicrobial resistance.

Living with it and what to expect

After effective drainage, pressure and pain often begin to improve. The wound then heals from the bottom upward, which helps prevent another sealed pocket from forming. Some drainage during early healing can be expected.

Healing may take several days to a few weeks. The time is influenced by the abscess's size and depth, its location, whether infection has spread, and health factors such as diabetes or reduced immune function. A firm area or mild skin colour change can remain after the active infection has settled.

You may need follow-up for a wound check, dressing change or culture result. This is routine unless symptoms are worsening. Take any prescribed antibiotic for the instructed course, and ask for advice if you develop troublesome side effects.

A single abscess usually does not cause long-term health problems. Some people develop another one later. Frequent abscesses can affect sleep, movement, work, exercise and confidence, especially when they occur in sensitive areas. Assessment can help identify treatable causes and distinguish recurring infection from a long-term condition such as hidradenitis suppurativa.

When to get medical help

Arrange a routine appointment if you have a painful lump that is enlarging, has not improved after several days, or keeps returning. A lump that persists after inflammation settles also needs assessment.

Seek urgent, same-day medical advice if:

Seek emergency help if you become confused, faint, severely short of breath, difficult to wake, or rapidly more unwell. Rapidly spreading swelling, severe pain far greater than expected, or pale, blue or mottled skin around the infection also needs emergency assessment.

- Redness, swelling or pain is spreading
- You have fever, chills or feel generally unwell
- Red streaks extend away from the lump
- The abscess is on the face, near an eye, or over the spine
- Pain is severe or increasing quickly
- You have diabetes, reduced immune function or poor circulation
- The abscess developed after an injection, bite or penetrating injury
- Symptoms worsen after drainage or while taking antibiotics

Common questions

Can a skin abscess go away on its own?

A small boil may open and drain without a procedure. A larger, deeper or increasingly painful abscess often needs professional drainage. Waiting while it grows can make treatment more difficult, particularly if redness is spreading or you feel unwell.

Can I pop or drain an abscess at home?

No. Squeezing or piercing it can spread bacteria into surrounding or deeper tissue. It can also cause bleeding, scarring or injury. Keep it covered and use a warm compress for comfort while arranging assessment.

How can I tell an abscess from a cyst?

An abscess is usually painful, warm and inflamed, and it may grow quickly or drain pus. A cyst is often a slower-growing lump containing skin material or fluid, although a cyst can become inflamed or infected. An examination is sometimes needed to tell them apart.

Is a skin abscess contagious?

The pocket of pus itself is not passed from person to person, but bacteria in the drainage can

spread through skin contact or shared objects. Keep the area covered, wash your hands and avoid sharing towels, razors or clothing.

Why do I keep getting skin abscesses?

Possible reasons include bacterial carriage on the skin or in the nose, repeated friction, diabetes, reduced immune function, an infected cyst or hidradenitis suppurativa. Recurring abscesses should be assessed so that treatment can target the cause.

Will an abscess leave a scar?

Some abscesses leave a small scar or lasting colour change, especially if they were large, deep or repeatedly inflamed. Avoiding squeezing and getting appropriate drainage may limit tissue damage, but scarring cannot always be prevented.

Sources

- National Health Service. Abscess
- Infectious Diseases Society of America. Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: 2014 Update
- BMJ Rapid Recommendations. Antibiotics after incision and drainage for uncomplicated skin abscesses
- Merck Manual Professional Edition. Cutaneous Abscess
- MedlinePlus Medical Encyclopedia. Skin abscess